EduSahara™ Assignment

Name : Circle Basics

Chapter : Circles

Grade : SSC Grade IX

1. The mid-point of the diameter of a circle is called

   (i) segment (ii) chord (iii) semi-circle (iv) centre (v) diameter

2. A line segment joining any point on the circle with its centre is called

   (i) radius (ii) circumference (iii) centre (iv) segment (v) chord

3. A line segment having its end points on the circle is called a

   (i) centre (ii) chord (iii) semi-circle (iv) radius (v) circumference

4. A chord that passes through the centre of the circle is called

   (i) centre (ii) diameter (iii) chord (iv) major segment (v) circumference

5. A chord of a circle divides the whole circular region into two parts, each called a

   (i) diameter (ii) centre (iii) chord (iv) semi-circle (v) segment

6. The segment of the circle containing the centre of the circle is called

   (i) chord (ii) semi-circle (iii) major segment (iv) radius (v) circumference

7. Half of a circle is called

   (i) diameter (ii) chord (iii) major segment (iv) semi-circle (v) circumference

8. The perimeter of a circle is called

   (i) circumference (ii) semi-circle (iii) diameter (iv) radius (v) major segment

9. Which of the following statements are true?

   a) Each radius of a circle is also a chord of the circle.
   b) Every circle has a unique diameter.
   c) Every circle has a unique centre.
   d) A circle consists of an infinite number of points.
   e) A line can meet a circle atmost at two points.

   (i) {a,c} (ii) {a,c,d} (iii) {b,d} (iv) {c,d,e} (v) {a,b,e}

10. Which of the following statements are true?

    a) Every circle has a unique diameter.
    b) Two semi-circles of a circle together make the whole circle.
    c) An infinite number of chords may be drawn for a circle.
    d) One and only one tangent can be drawn to a circle from a point outside it.
    e) An infinite number of diameters may be drawn for a circle.

    (i) {a,d,e} (ii) {a,b} (iii) {d,c} (iv) {b,c,e} (v) {a,b,c}

11. Which of the following statements are true?

a) Diameter of a circle is a part of the semi-circle of the circle.
b) One and only one tangent can be drawn to a circle from a point outside it.
c) Every circle has a unique diameter.
d) A secant of a circle is a segment having its end points on the circle.
e) One and only one tangent can be drawn to pass through a point on a circle.

(i) {c,e,a} (ii) {c,e} (iii) {d,b,a} (iv) {a,e} (v) {b,a}

12. If the diameter of a circle is 154 cm, what is its radius?

(i) 75 cm (ii) 77 cm (iii) 78 cm (iv) 79 cm (v) 76 cm

13. If the radius of a circle is 98 cm, what is its diameter?

(i) 195 cm (ii) 194 cm (iii) 197 cm (iv) 198 cm (v) 196 cm

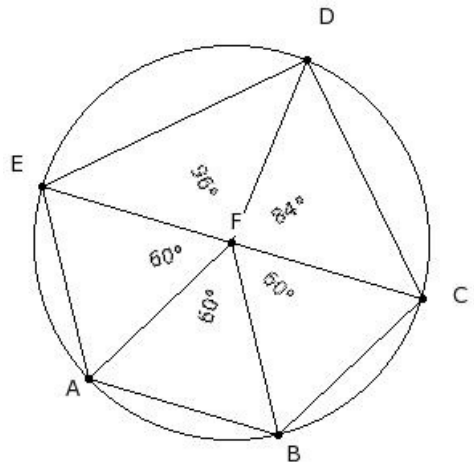
14. If the radius of a circle is 21 cm, what is its circumference?

(i) 132 cm (ii) 133 cm (iii) 131 cm (iv) 134 cm (v) 130 cm

15. Two circles with equal radii are

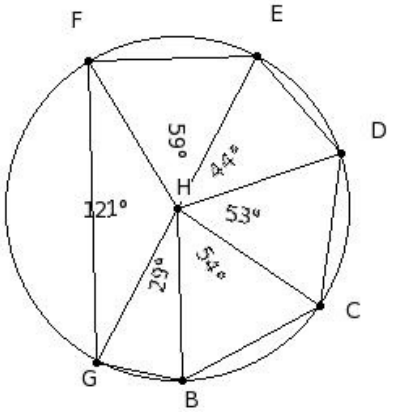
(i) not similar (ii) concentric (iii) congruent (iv) only similar but not congruent

16. The centre of the circle is



(i) D (ii) F (iii) B (iv) A (v) C

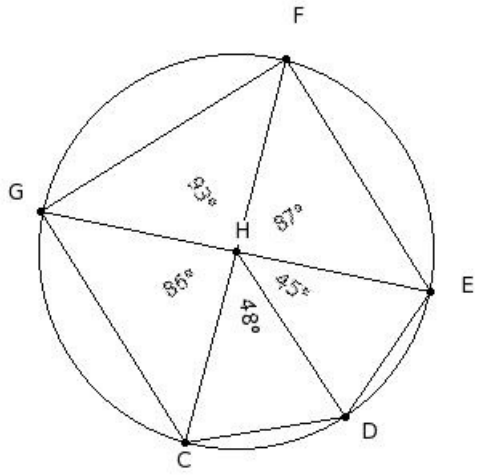
17. The chords of the circle are



(i) $\overline{BC}, \overline{CD}, \overline{DE}, \overline{EF}, \overline{FG}, \overline{GB}, \overline{HF}$ (ii) $\overline{BC}, \overline{CD}, \overline{DE}, \overline{EF}, \overline{FG}, \overline{GB}$ (iii) $\overline{BC}, \overline{CD}, \overline{DE}, \overline{EF}, \overline{FG}, \overline{GB}, \overline{EG}$

(iv) $\overline{HB}, \overline{HC}, \overline{HD}, \overline{HE}, \overline{HF}, \overline{HG}$ (v) $\overline{CD}, \overline{DE}, \overline{EF}, \overline{FG}, \overline{GB}$

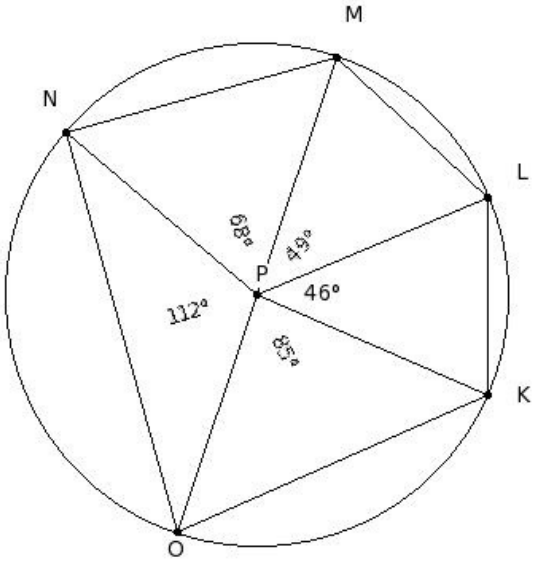
18. The diameters of the circle are



(i) $\overline{EG}$ (ii) $\overline{HC}, \overline{HD}, \overline{HE}, \overline{HF}, \overline{HG}$ (iii) $\overline{CD}, \overline{DE}, \overline{EF}, \overline{FG}, \overline{GC}$ (iv) $\overline{CD}, \overline{DE}, \overline{EF}, \overline{FG}, \overline{GC}, \overline{EG}$

(v) $\overline{HC}, \overline{HD}, \overline{HE}, \overline{HF}, \overline{HG}, \overline{EG}$

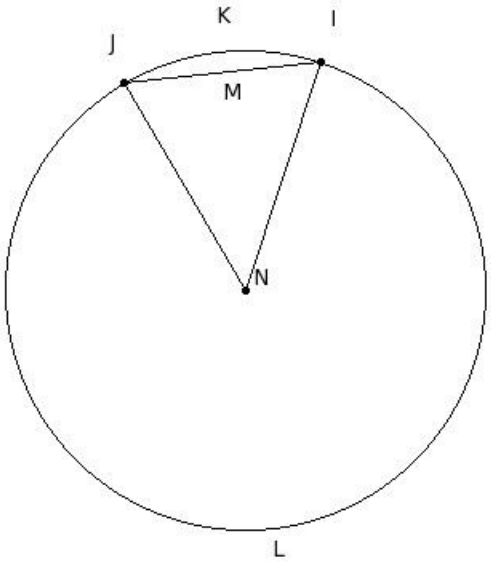
19. The radii of the circle are



(i) $\overline{LM}, \overline{MN}, \overline{NO}, \overline{OK}$ (ii) $\overline{KL}, \overline{LM}, \overline{MN}, \overline{NO}, \overline{OK}, \overline{PL}$ (iii) $\overline{PK}, \overline{PL}, \overline{PM}, \overline{PN}, \overline{PO}$ (iv) $\overline{KL}, \overline{LM}, \overline{MN}, \overline{NO}, \overline{OK}, \overline{MO}$

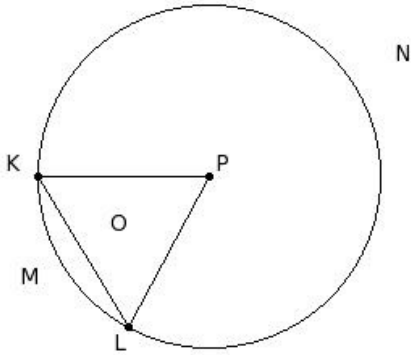
(v) $\overline{KL}, \overline{LM}, \overline{MN}, \overline{NO}, \overline{OK}$

20. The minor sector of the circle is



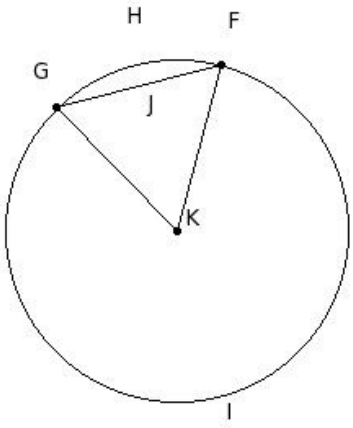
(i) IKJMI (ii) ILJMI (iii) NIKJN (iv) NILJN (v) ILJ

21. The major sector of the circle is



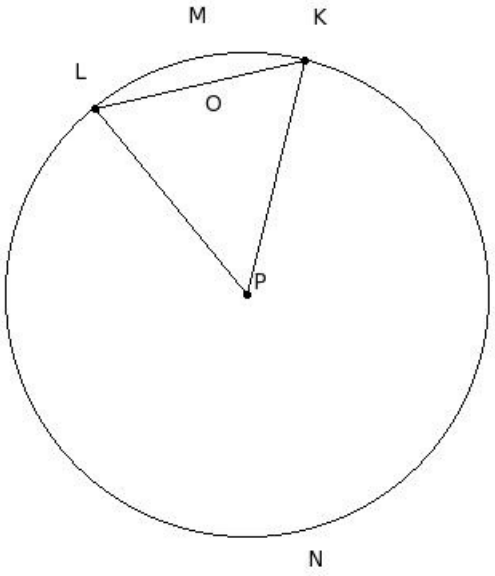
(i) KMLOK (ii) KML (iii) PKMLP (iv) PKNLP (v) KNLOK

22. The minor arc of the circle is



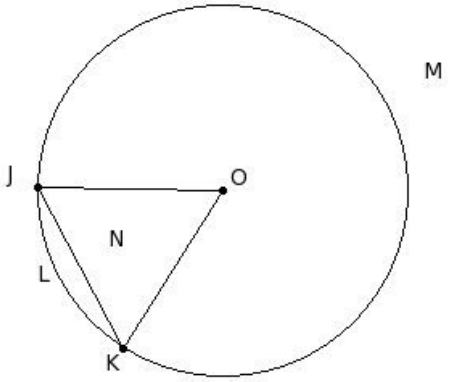
(i) FIG (ii) FHGJF (iii) KFIGK (iv) FIGJF (v) FHG

23. The major arc of the circle is



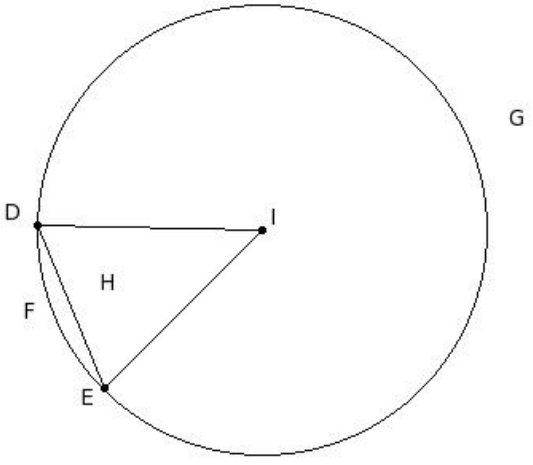
(i) KML (ii) PKNLP (iii) KNLOK (iv) KNL (v) PKMLP

24. The minor segment of the circle is



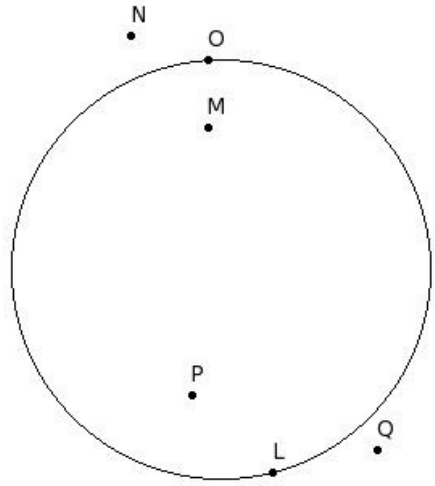
(i) OJMKO (ii) JLKNJ (iii) JMK (iv) JLK (v) OJLKO

25. The major segment of the circle is



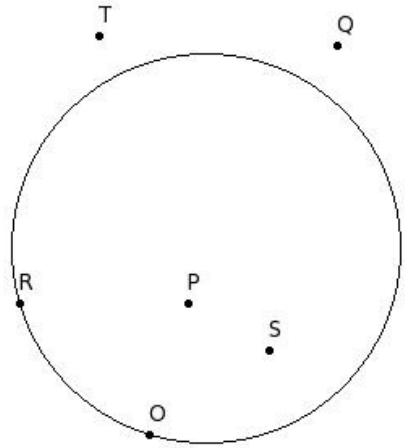
(i) DFE (ii) IDGEI (iii) DFEHD (iv) DGE (v) DGEHD

26. Find the points belonging to the circle



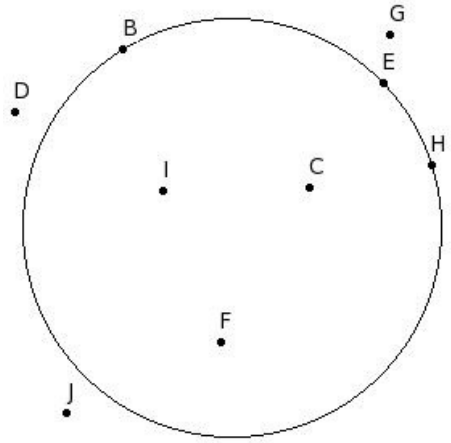
(i) {M,P} (ii) {N,Q} (iii) {M,O} (iv) {L,O} (v) {N,O}

27. Find the points belonging to the inside of the circle



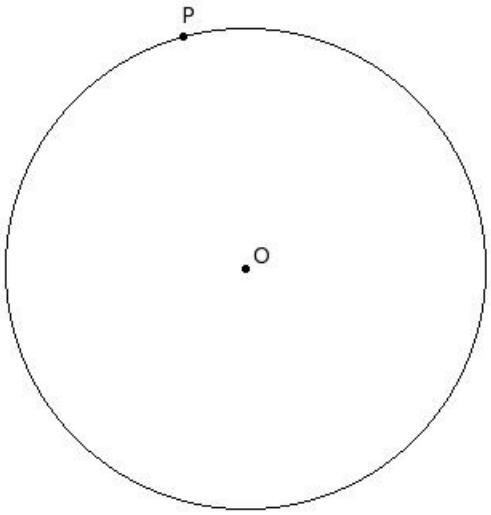
(i) {R,P} (ii) {Q,P} (iii) {O,R} (iv) {Q,T} (v) {P,S}

28. Find the points belonging to the outside of the circle



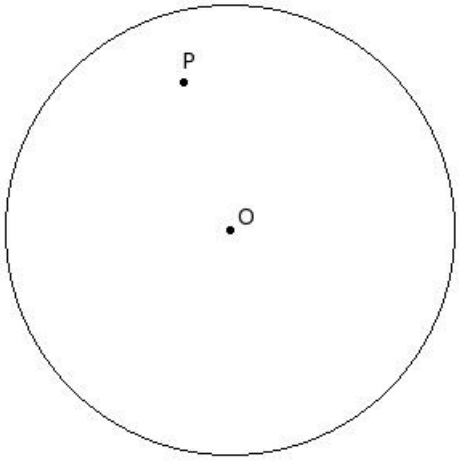
(i) {G,D,B} (ii) {D,G,J} (iii) {B,E,H} (iv) {C,F,I} (v) {F,G,J}

29. 'O' is the centre of a circle of radius 'r' and 'P' is any point in its plane. If $\overline{OP}$ = r ,then P is



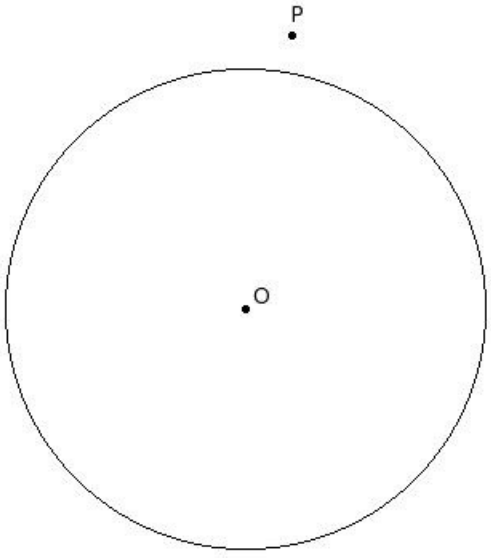
(i) outside the circle (ii) inside the circle (iii) on the circle

30. 'O' is the centre of a circle of radius 'r' and 'P' is any point in its plane. If $\overline{OP}$ < r,then P is



(i) outside the circle (ii) inside the circle (iii) on the circle

31. 'O' is the centre of a circle of radius 'r' and 'P' is any point in its plane. If $\overline{OP}$ > r,then P is



(i) inside the circle (ii) on the circle (iii) outside the circle

32. The distance around the circle is called

(i) radius (ii) chord (iii) arc (iv) circumference (v) diameter

33. A line which intersects the circle at two distinct points is called a

(i) quadrant (ii) segment (iii) radius (iv) secant (v) semi-circle

34. A line which touches a circle at only one point is called a

(i) quadrant (ii) tangent (iii) circumference (iv) secant (v) centre

35. If the two radii OP and OQ of a circle are at right angles to each other, then the sector OPQ is called a

(i) chord (ii) centre (iii) quadrant (iv) tangent (v) diameter

36. Which of the following statements are true?

a) The diameter is the longest chord.
b) A chord divides a circle into two segments.
c) Atmost one chord can be drawn on a circle with a certain length.
d) A chord divides a circle into two sectors.
e) The radius is the shortest chord.

(i) {d,b} (ii) {a,b} (iii) {d,b,a} (iv) {c,a} (v) {e,c,a}

37. Which of the following statements are true?

a) Equal length chords subtend equal angles at the centre of the circle.
b) Equal length chords are equidistant from the centre of the circle.
c) The longest chord of the circle passes through the centre of the circle.
d) No two chords bisects each other.
e) The farther the chord is from the centre, the larger the angle it subtends at the centre.

(i) {d,e,c} (ii) {e,b} (iii) {d,a,b} (iv) {d,a} (v) {a,b,c}

38. Which of the following statements are true?

a) The area enclosed by a chord and its minor arc is called minor segment.
b) The area enclosed by a chord and its major arc is called major segment.
c) A sector is the area enclosed by two radii and a chord.
d) A circle divides the plane on which it lies into three parts.
e) The diameter divides the circle into two unequal parts.

(i) {c,e,d} (ii) {e,b} (iii) {c,a,b} (iv) {c,a} (v) {a,b,d}

39. Which of the following statements are true?

a) The diameter divides the circle into two unequal parts.
b) The midpoint of any diameter of a circle is its centre.
c) A sector is the area enclosed by two radii and a chord.
d) Two chords bisect each other.
e) The longest of all chords of a circle is called diameter.

(i) {d,a,b} (ii) {c,e,b} (iii) {b,e} (iv) {c,e} (v) {a,b}

40. Which of the following statements are true?

a) Exactly two tangents can be drawn parallel to a secant.
b) Only one circle can be drawn passing through two points.
c) Infinite circles can be drawn passing through three collinear points.
d) Only one circle can be drawn with a centre.
e) Atmost one circle can be drawn passing through three non-collinear points.

(i) {c,e,a} (ii) {d,b,a} (iii) {c,e} (iv) {a,e} (v) {b,a}

41. The point of intersection of the angular bisectors of a triangle is

(i) incentre (ii) excentre (iii) orthocentre (iv) centroid (v) circumcentre

42. If the radius of the circumcircle is half the length of a side of the triangle, then the triangle is

(i) acute angled triangle (ii) right angle triangle (iii) obtuse angled triangle (iv) equilateral triangle

43. Circles having common centre are called

(i) concentric circles (ii) intersecting circles (iii) congruent circles (iv) similar circles

44. If two circles are concentric, then

(i) their diameters are same (ii) their radii are same (iii) their perimeters are same

(iv) their centres are same

45. Which of the following figures represent a chord ?

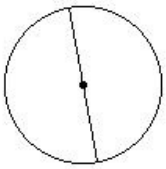


fig I

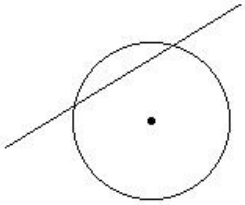


fig II

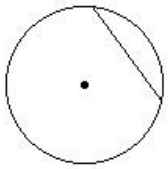


fig III

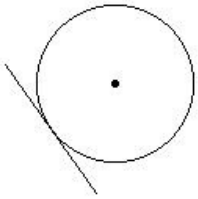


fig IV

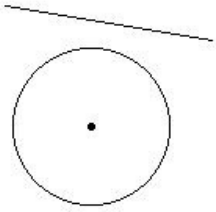


fig V

(i) fig I (ii) fig V (iii) fig III (iv) fig II (v) fig IV

46. Which of the following figures represent a diameter ?

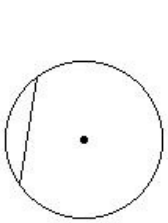


fig I

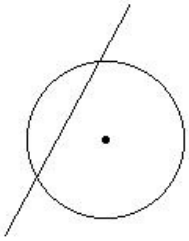


fig II

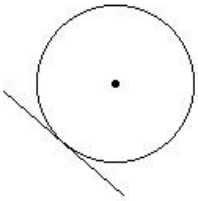


fig III

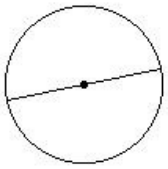


fig IV

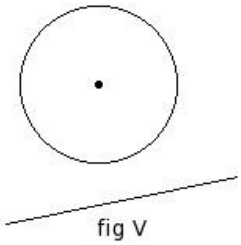


fig V

(i) fig IV (ii) fig II (iii) fig I (iv) fig V (v) fig III

47. Which of the following figures represent a secant ?

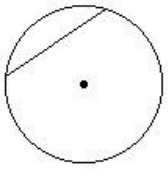


fig I

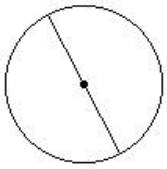


fig II

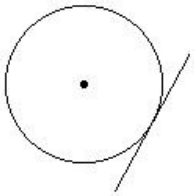


fig III

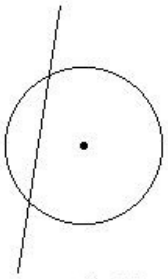


fig IV

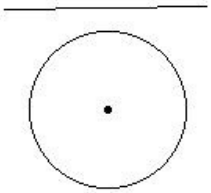


fig V

(i) fig II (ii) fig I (iii) fig IV (iv) fig V (v) fig III

48. Which of the following figures represent a tangent ?

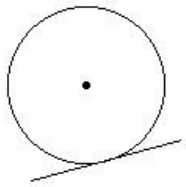


fig I

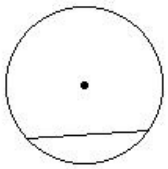


fig II

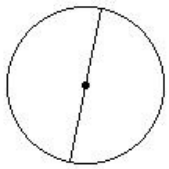


fig III

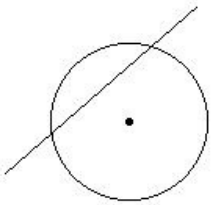


fig IV

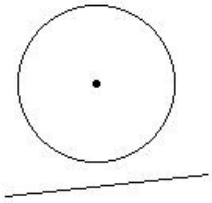


fig V

(i) fig V (ii) fig III (iii) fig I (iv) fig IV (v) fig II

49. In triangle HIJ, if a circle is drawn with IJ as diameter and if it passes through H it is a

(i) obtuse angled triangle (ii) equilateral triangle (iii) acute angled triangle (iv) right angle triangle

50. Which of the following statements are true?

a) $\frac{22}{7}$ is a rational number.

b) π is a rational number.

c) A circle divides the plane into three mutually disjoint sets of points.

d) All chords of a circle are diameters.

e) All diameters of a circle are chords.

(i) {d,c} (ii) {b,a} (iii) {a,c,e} (iv) {b,d,e} (v) {b,a,c}

51. Points which lie on the circumference of the circle are called

(i) Coincident points (ii) Cyclic points (iii) Concurrent points (iv) Similar points (v) Concyclic points

Assignment Key

1) (iv)	2) (i)	3) (ii)	4) (ii)	5) (v)	6) (iii)
7) (iv)	8) (i)	9) (iv)	10) (iv)	11) (iv)	12) (ii)
13) (v)	14) (i)	15) (iii)	16) (ii)	17) (ii)	18) (i)
19) (iii)	20) (iii)	21) (iv)	22) (v)	23) (iv)	24) (ii)
25) (v)	26) (iv)	27) (v)	28) (ii)	29) (iii)	30) (ii)
31) (iii)	32) (iv)	33) (iv)	34) (ii)	35) (iii)	36) (ii)
37) (v)	38) (v)	39) (iii)	40) (iv)	41) (i)	42) (ii)
43) (i)	44) (iv)	45) (iii)	46) (i)	47) (iii)	48) (iii)
49) (iv)	50) (iii)	51) (v)			